

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Applicant : **JOHN K. SAVAGE** )  
 )  
Reissue Serial No.: 10/077,364 )  
 )  
Title: COMPUTER SYSTEM FOR )  
MAINTAINING CURRENT )  
AND PREDICTING FUTURE )  
FOOD NEEDS )  
 )  
Filed: FEBRUARY 15, 2002 )  
 )  
Group Art Unit: 3661 )  
 )  
Examiner: CUONG NGUYEN )

**APPEAL BRIEF**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Responsive to the Final Action mailed May 26, 2006, the applicant respectfully submits this appeal brief along with the enclosed Notice of Appeal and Petition for Three Month Extension of Time in connection with the above-identified patent application. Applicant respectfully submits the instant Appeal Brief in accordance with 37 C.F.R. § 41.37. Enclosed is a check in the amount of \$2020.00, pursuant to 37 C.F.R. § 41.20(b), and the fees required for the Petition under 37 C.F.R. § 1.17(a)(3). If there are any additional fees or refunds required, the Commissioner is directed to charge or debit Deposit Account No. 13-2855.

**I. Real Party In Interest**

The real party in interest is John K. Savage, the sole inventor of the above-identified patent application.

**II. Related Appeals and Interferences**

There are no related appeals or interferences.

**III. Status of the Claims**

Currently, claims 1-22 are pending in this application. The pending claims are presented in Appendix A to this Brief. Claims 1-22 stand rejected and form the subject matter of this appeal. Specifically, claims 14-20 and 22 stand rejected as obvious over Cahlander et al. (U.S. Serial No. 4,922,435) in view of Dietrich et al. (U.S. Serial No. 5,630,070); claims 4, 11, and 21 stand rejected as obvious over Cahlander et al. in view of Dietrich et al.; and claims 1-3, 5-10, and 12-13 stand rejected as obvious over alleged admitted prior art (*see*, e.g., page 2, lines 4-13 of the instant specification) in view of Cahlander et al. and in view of Dietrich et al.

**IV. Status of the Amendments**

There are no outstanding amendments to the application.

**V. Summary of the Claimed Subject Matter**

Although specification citations are inserted below in accordance with C.F.R. 1.192(c), these reference numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to the examples in the specification. Although, as demonstrated by the reference numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology, as is done here to comply with rule 1.192(c), does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading

limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

The invention, as defined in claims 1-22, and with reference to FIGS. 1-4, is computer system 10 that maintains an inventory of food items. The computer system includes an electronic cash register 11 electronically coupled to a cooking station monitor 12 and input 13, a manger's station monitor 15, input 16, and printer 17. The computer system 10 registers selected food items, issues an order slip to a customer, registers a desired quantity of selected food items for a desired time period. The computer system also registers the quantity of selected food items on hand (i.e., the quantity of food items presently cooked and available), the number of food items in the process of being cooked, and the number of food items to be counted as waste. The computer system then computes a time period to cook additional food items and issues instructions to cook additional food items in order to maintain a certain quantity of selected food items at a desired time interval. The computer system continually updates the available quantity of selected food items as individual items complete the cooking process, as individual items become unavailable for sale due to contamination or age, and as individual items are sold.

#### **VI. Grounds of rejection to be reviewed on appeal.**

The grounds of rejection to be reviewed on appeal are:

- 1) Are each of pending claims 1-3, 5-10, and 12-13 allowable over the combination of the alleged admitted prior art and Cahlander et al. and Dietrich et al.?
- 2) Are each of pending claims 4, 11, and 21 allowable over the combination of Cahlander et al. and Dietrich et al.?
- 3) Are each of pending claims 14-20, and 22 allowable over the combination of Cahlander et al. and Dietrich et al.?

## VII. Argument

### A. Claims 1-3, 5-10, and 12-13 meet the requirements for patentability and are allowable over the alleged admitted prior art in view of Cahlander et al. and in view of Dietrich et al.

Claims 1-3, 5-10, and 12-13, of which claims 1 and 7 are independent and 2-3, 5-6 and 8-13 depend directly or indirectly therefrom. Independent claims 1 and 7 recite, *inter alia*, a computer system for determining and transmitting cooking commencement instructions for selected food items comprising a programmable memory, a cooking station monitor, a table of selected food items, a table of *desired quantities of selected food times a desired time* intervals, a control means for initiating a cooking instruction and *a wasted food registration means* that updates a variable quantity of selected food items. For example, FIG. 2 illustrates a major portion of the computer system 10 and FIG. 3 illustrates a flow chart of the operation of the prediction commencement time decision means 44.

### 35 U.S.C. § 103 REJECTION

The examiner has failed to make out a *prima facie* case of obviousness because the proffered combination of alleged admitted prior art in view of Cahlander et al. and in view of Dietrich et al. fails to teach each and every limitation of the claims. This is because the examiner misquotes (and has misquoted in each previous rejection) the instant specification at page 2, lines 4-13, which is the basis for the alleged admitted prior art. In particular, the examiner misquotes the instant specification as disclosing systems that “commence the items of a selected order so that all the items are completed at **a current inventory** but is responsive to a select order of a customer.” Emphasis added, *see* the office action, page 7. A correct and complete quotation of this portion of the instant specification reads: “Systems have been designed, such as that shown in U.S. Pat. No. 5,218,527, which instruct the cook when to commence the items of a selected order so that all the items are completed at

**approximately the same time. This system however does not maintain** a current inventory but is responsive to a select order of a customer.” Emphasis added, *see* the instant specification, page 2, lines 4-13 and/or U.S. Patent No. 6,026,372, col. 1, lines 29-34.

Because the examiner relies on a misquoted portion of the instant specification, which does not teach or suggest what the examiner alleges it to teach or suggest, he has failed to make out a *prima facie* case of obviousness. As such, the rejection of claims 1-3, 5-10, and 12-13, is improper. The applicant respectfully requests the Board reverse the examiner and find claims 1-3, 5-10, and 12-13 allowable over the alleged admitted prior art in view of Cahlander et al. and Dietrich et al.

**B. Claims 4, 11, and 21 meet the requirements for patentability and are allowable over Cahlander et al. in view of Dietrich et al.**

The applicant also traverses the rejection of claims 4, 11 and 21 as obvious over Cahlander et al. in view of Dietrich et al. Claim 4 depends from claim 1 and claim 11 depends from claim 7. Both claim 1 and claim 7 were rejected only as being obvious over **the alleged admitted prior art** in view of Cahlander et al. and Dietrich et al. Because the examiner otherwise alleged that a *prima facie* case of obviousness can only be made out against claims 1 and 7 in view of the alleged admitted prior art, the applicant submits that the rejection of dependent claims 4 and 11 must also include the alleged admitted prior art as a proper basis for the rejection. This must be so as dependent claims 4 and 11 include all of the elements in independent claims 1 and 7 respectively. Thus, the rejection of claims 4 and 11 is improper to the extent that the examiner has not explained what portions of Cahlander et al. and/or Dietrich et al. are relied upon to correct the deficiencies that would be left by the removal of the alleged admitted prior art. Furthermore, the applicant maintains that the alleged admitted prior art relied on by the examiner in the rejection of claims 1-3, 5-10 and 12-13 is improperly quoted and thus would also render the rejection of claims 4 and 11 in

view thereof improper. As a result, the applicant respectfully requests the Board reverse the examiner for the reasons noted above with respect to the rejection of claims 4 and 11.

Moreover, the applicant contends the combination of Cahlander et al. and Dietrich et al. fails to disclose each and every element in the claims (independent claims 1 and 7 as well as claims 4, 11 and 21) and as such cannot make out a *prima facie* case of obviousness separate and apart from the alleged admitted prior art. In particular, while Cahlander et al. disclose a system for food preparation including a control system that schedules and initiates food preparation activities, Cahlander et al. fail to disclose or suggest any way to account for waste food items. Specifically, the Cahlander et al. device produces food at a frequency based on historical data and real time point of sale data, but does not account for any waste food items (col. 4, lines 31-36).

Fast food restaurants, for example, may be regulated through local or state laws that may specify for example, how long a cooked food item, such as french fries or hamburgers, may remain in a queue and available for sale. For example, a hamburger may only be available for sale for 15 minutes after completion of cooking. After such time, the food item must usually be discarded. Cahlander et al. do not even recognize this problem, let alone a means for solving this problem.

In contrast, the instant applicant discloses and the invention as claimed uses a wasted food registration means (*See e.g.*, col. 4, lines 65-66) that updates the number of particular food items available for sale when necessary to account for any waste items. Therefore, the claimed system maintains an available quantity of each food item for sale. This available quantity acts as a shock absorber allowing the system to instantly react to changes in customer demand. On the other hand, the Cahlander et al. device, because it schedules rates of production, is not able to instantly respond to a change in customer demand, or to waste

food items. For example, as explained by Cahlander et al., customer demand must deviate by 20% from forecast for 15 minutes before their device modifies the production rate (col. 30, lines 48-51). Thus, Cahlander et al. fail to disclose or suggest a wasted food registration means, as is recited in each of claims 1-3, 5-10, and 12-13, but in particular, claims 1 and 7.

Even if, for the sake of argument, one considered the “historical data” used by the Cahlander et al. system to set food production rates as including waste data, such waste data is historical. In this regard, Cahlander et al. teach away from the system of the instant invention providing accounting of **actual** waste food items. There is no teaching or suggestion by Cahlander et al. that the considered real time data includes waste food items.

Likewise, Dietrich et al. also fail to disclose a wasted food registration means. The Dietrich et al. device optimizes an output parameter (generally revenue or profit), thus eliminating wasted product. Dietrich et al. disclose optimizing an end or intermediate product given an inventory of raw materials. Therefore Dietrich et al., like Cahlander et al., fail to even recognize a need to account for actual wasted food items, let alone a means for updating a current inventory in view of wasted food items. Dietrich et al. similarly teach away from a system that incorporates wasted food items accounting by attempting to optimize production to eliminate waste.

Because neither Cahlander et al. nor Dietrich et al. disclose or suggest a wasted food registration means, as is recited by each of claims 4, 11, and 21 (and each of claims 1, 7 and 14), none of claims 4, 11, and 21 can be rendered obvious by any combination thereof, which also fails to disclose or suggest a wasted food registration means. Accordingly, the applicant submits that each of claims 4, 11, and 21 is allowable over the combination of Cahlander et al. in view of Dietrich et al.

**C. Claims 14-20 and 22 meet the requirements for patentability and are allowable over Cahlander et al. in view of Dietrich et al.**

Of claims 14-20, and 22, claim 14 is independent and claims 15-20 and 22 depend directly or indirectly therefrom. Independent claim 14 recites, *inter alia*, a computer system for determining and transmitting cooking commencement instructions for selected food items comprising a programmable memory, a cooking station monitor, a table of selected food items, a table of *desired quantities of selected food times a desired time* intervals, a control means for initiating a cooking instruction and *a wasted food registration means* that updates a variable quantity of selected food items. For example, FIG. 2 illustrates a major portion of the computer system 10 and FIG. 3 illustrates a flow chart of the operation of the prediction commencement time decision means 44.

**35 U.S.C. § 103 REJECTION**

Claims 14-20, and 22 are allowable at least for the reasons set forth above with respect to claims 4, 11, and 21. The applicant's arguments are reproduced for ease of reference.

Claims 14-20, and 22 are allowable over Cahlander et al. in view of Dietrich et al. because this combination fails to disclose or suggest each and every limitation of the claims. In particular, each of claims 14-20, and 22 recites, *inter alia*, a wasted food registration means that updates a variable quantity of selected food items. While Cahlander et al. disclose a system for food preparation including a control system that schedules and initiates food preparation activities, Cahlander et al. fail to disclose or suggest any way to account for waste food items. Specifically, the Cahlander et al. device produces food at a frequency based on historical data and real time point of sale data, but does not account for any waste food items (col. 4, lines 31-36).



Fast food restaurants, for example, may be regulated through local or state laws that may specify for example, how long a cooked food item, such as french fries or hamburgers, may remain in a queue and available for sale. For example, a hamburger may only be available for sale for 15 minutes after completion of cooking. After such time, the food item must usually be discarded. Cahlander et al. do not even recognize this problem, let alone a means for solving this problem.

In contrast, the instant applicant discloses and the invention as claimed uses a wasted food registration means (*See e.g.*, col. 4, lines 65-66) that updates the number of particular food items available for sale when necessary to account for any waste items. Therefore, the claimed system maintains an available quantity of each food item for sale. This available quantity acts as a shock absorber allowing the system to instantly react to changes in customer demand. On the other hand, the Cahlander et al. device, because it schedules rates of production, is not able to instantly respond to a change in customer demand, or to waste food items. For example, as explained by Cahlander et al., customer demand must deviate by 20% from forecast for 15 minutes before their device modifies the production rate (col. 30, lines 48-51). Thus, Cahlander et al. fail to disclose or suggest a wasted food registration means, as is recited in each of claims 1-3, 5-10, and 12-13, but in particular, claims 1 and 7.

Even if, for the sake of argument, one considered the “historical data” used by the Cahlander et al. system to set food production rates as including waste data, such waste data is historical. In this regard, Cahlander et al. teach away from the system of the instant invention providing accounting of **actual** waste food items. There is no teaching or suggestion by Cahlander et al. that the considered real time data includes waste food items.

Likewise, Dietrich et al. also fail to disclose a wasted food registration means. The Dietrich et al. device optimizes an output parameter (generally revenue or profit), thus

eliminating wasted product. Dietrich et al. disclose optimizing an end or intermediate product given an inventory of raw materials. Therefore Dietrich et al., like Cahlander et al., fail to even recognize a need to account for actual wasted food items, let alone a means for updating a current inventory in view of wasted food items. Dietrich et al. similarly teach away from a system that incorporates wasted food items accounting by attempting to optimize production to eliminate waste.

Because neither Cahlander et al. nor Dietrich et al. disclose or suggest a wasted food registration means, as is recited by each of claims 4, 11, and 21, none of claims 4, 11, and 21 can be rendered obvious by any combination thereof. Accordingly, the applicant submits that each of claims 4, 11, and 21 is allowable over the combination of Cahlander et al. in view of Dietrich et al.

**D. No motivation to combine Cahlander et al. and Dietrich et al.**

The examiner has furthermore failed to make out a *prima facie* case of obviousness and the claims of the instant application are allowable over any proffered combination of references including the combination of Cahlander et al. in view of Dietrich et al. because there is no motivation to combine Cahlander et al. and Dietrich et al. Cahlander et al. disclose a system that attempts to match a rate of production with a customer demand rate. The Cahlander et al. system operates by a method that is analogous with what is known in the manufacturing art as “just in time” supply chain management. “Just in time” supply chain management strives to deliver raw materials and/or intermediate products just as the final manufacturer needs them, thus eliminating a need for a current inventory of raw materials and/or intermediate items. Dietrich et al. specifically teach away from “just-in-time” production. At col. 21, lines 5-22, Dietrich et al. disclose that the Dietrich et al. system is not required if there is an unlimited supply of raw materials (i.e., a “just in time” supply chain),

which is what the Cahlander et al. device uses. The Dietrich et al. system is specifically designed to operate to maximize a chosen parameter (profit) given a **constrained** set of raw materials. Thus, the Dietrich et al. system “provides methods for determining the best utilization of the available resources,” not necessarily a method for managing an inventory of finished products. For this additional reason, claims 1-22 cannot be rendered obvious by any combination of Cahlander et al. and Dietrich et al.

#### **CONCLUSION**

In view of the foregoing remarks, it is respectfully submitted that each of claims 1-22 is allowable over the cited references. The applicant requests the Board to reverse the examiner with respect to each of the rejections of the claims, and return the application to the examiner for further prosecution consistent with its decision.

Respectfully submitted,

**November 27, 2006**

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**APPENDIX A**

**CLAIMS APPENDIX**

The following listing of claims replaces all prior presentations or listing of claims.

1. (Previously Presented) A computer system for determining and transmitting cooking commencement instruction for selected food items at time intervals to supply future needs of the selected food items, comprising:

programmable memory;

a cooking station monitor;

a table of selected food items stored on said programmable memory;

a table of desired quantities of the selected food items at desired time intervals relating to said table of selected food items, said table of desired quantities at desired time intervals being stored on said programmable memory;

a table of cooking time to prepare intervals relating to said table of selected food items, said table of cooking time to prepare intervals being stored on said programmable memory;

a variable quantity of processed selected food items stored on said programmable memory;

clock means for establishing current time;

control means for initiating a cooking instruction to said cooking station monitor in response to a selected relation between the current time and said table of desired quantities of the selected food items at desired time intervals and said table of cooking time to prepare intervals, and a selected relation between the variable quantity of selected food items and said table of desired quantities of selected food items at desired time intervals,

wherein the variable quantity of processed selected food items is updated by a wasted food registration means for any waste food items.

2. (Original) The computer system of claim 1, wherein said control means initiates the cooking instruction to said cooking station monitor upon the current time being equal to or less than the desired time interval with said table of desired quantities of the selected food items at desired time interval minus a preparation time interval associated with each selected food item.

3. (Original) The computer system of claim 1 wherein said control means further establishes the cooking instruction upon the quantities of processed selected food items being less than the desired quantities within said table of desired quantities of the selected food items at desired time intervals.

4. (Original) The computer system of claim 1 further comprising a variable quantity of food items presently cooking, and said variable quantities of processed food items includes said variable quantity of food items presently cooking.

5. (Original) The computer system of claim 1, further comprising a cash register and wherein said control means subtracts a number of said selected food items manually entered upon said cash register from said variable quantity of selected food items stored on said programmable memory.

6. (Original) The computer system of claim 1 further comprising a table of number of food items to be cooked at a time stored on said programmable memory and relating to said table of selected food items.

7. (Previously Presented) A computer system for determining and transmitting cooking times for selected food items at time intervals to predict future needs of the selected food items, comprising:

programmable memory;

a table of selected food items stored on said programmable memory;

a table of desired quantities of the selected food items at desired time intervals relating to said table of selected food items, said table of desired quantities at desired time intervals being stored on said programmable memory;

a variable quantity of processed selected food items stored on said programmable memory;

clock means for establishing a current time;

control means for initiating a cooking instruction in response to a selected relationship between the current time and said table of desired quantities of the selected food items at desired time intervals, and a selected relationship between the variable quantity of processed selected food items and said table of desired quantity of processed selected food items at desired time intervals,

wherein the variable quantity of processed selected food items is updated by a wasted food registration means for any waste food items.

8. (Original) The computer system of claim 7 further comprising a table of cooking time to prepare intervals relating to said table of selected food items, said table of cooking time to prepare intervals being stored on said programmable memory, whereby said control means for initiating a cooking instruction to said cooking station monitor does so in response to a selected relation between the current time and said table of desired quantities of the selected food items at desired time intervals and said table of cooking time to prepare intervals.

9. (Original) The computer system of claim 7 wherein said control means initiates the cooking instruction to said cooking station monitor upon the current time being equal to or less than the desired time interval with said table of desired quantities of the selected food items at desired time interval minus a preparation time interval associated with each selected food item.

10. (Original) The computer system of claim 7 wherein said control means further establishes the cooking instruction upon the variable quantity of processed selected food items being less than the desired quantities within said table of desired quantities of the selected food items at desired time intervals.

11. (Original) The computer system of claim 7 further comprising a variable quantity of food items presently cooking, and said variable quantity of processed food items includes said variable quantity of food items presently cooking.

12. (Original) The computer system of claim 7 further comprising a cash register and wherein said control means subtracts a number of said selected food items manually entered upon said cash register from said variable quantity of processed selected food items stored on said programmable memory.

13. (Original) The computer system of claim 7 further comprising a table of number of food items to be cooked at a time stored on said programmable memory and relating to said table of selected food items.

14. (Previously Presented) A food preparation scheduling system for predicting future food needs comprising:

a processor;

a programmable memory coupled to the processor for storing tables of information about food items, the tables of information including desired quantities of food items at desired time intervals, cooking times for food items, and variable quantities of processed food items;

a first user interface operationally coupled to the processor and the programmable memory and adapted to communicate cooking instructions for the food items to a cooking station monitor in response to a selected relation between time of day, the cooking times for the food items and the desired quantities of food items at desired time intervals, and a selected relation between the variable quantities of processed food items and the desired quantities of food items at desired time intervals;

a second user interface operationally coupled to the processor and the programmable memory and adapted to receive a cooking commencement command; and

a clock for establishing a current time,

wherein the variable quantity of processed selected food items is updated by a wasted food registration means for any waste food items.

15. (Previously Presented) The food preparation scheduling system of claim 14, further comprising an order receiving interface operationally coupled to the processor and the programmable memory and adapted to receive orders for food items and update the information about food items including the variable quantities of processed food items.

16. (Previously Presented) The food preparation scheduling system of claim 15, wherein the processor upon receiving an order for a selected number of a selected food item from the order receiving interface subtracts the selected number of the selected food item from the variable quantities of processed food items for the selected food item.



17. (Previously Presented) The food preparation scheduling system of claim 14, wherein the first user interface comprises an input device and an output device.

18. (Previously Presented) The food preparation scheduling system of claim 17, wherein the output device is a display.

19. (Previously Presented) The food preparation scheduling system of claim 14, wherein the processor initiates a cooking instruction for a selected food item to the first user interface upon the current time of day being equal to or less than a time value in the desired quantities of food items at desired time intervals for the selected food item minus the cooking time for the selected food item.

20. (Previously Presented) The food preparation scheduling system of claim 14, wherein the processor initiates a cooking instruction for a selected food item to the first user interface upon the variable quantities of processed food items for the selected food item being less than a desired quantity of the selected food item in the desired quantities of food items at desired time intervals.

21. (Previously Presented) The food preparation scheduling system of claim 14, wherein the variable quantities of processed food items include a sum comprising quantities of processed food items on-hand and quantities of food items presently cooking.

22. (Previously Presented) The food preparation scheduling system of claim 14, the information about food items further including a number of food items to be cooked.